

WHAT IS CLAIMED IS:

1. A radius conveyor belt, comprising:
  - a plurality of belt modules having a plurality of
  - 5 first link ends disposed in the direction of belt travel and having a plurality of second link ends disposed in the opposite direction, a cross-rib disposed between the first and second link ends and having a web, and a corrugated portion disposed adjacent to the web, the
  - 10 first and second link ends disposed such that a space capable of receiving a link end is formed between each adjacent link end, the space being open at one end and terminating in an rounded region at the opposite end, the plurality of first link ends being offset from the
  - 15 plurality of second link ends such that the first link ends align with the space between the second link ends such that adjacently positioned belt modules are capable of intercalating so that the first link ends of one belt module fit into the spaces defined between the second
  - 20 link ends of an adjacent belt module, the plurality of first link ends having a slot defined therein, the slot disposed transverse to the direction of belt travel and extending in the direction of belt travel, the plurality of second link ends having a transverse opening defined
  - 25 therein;
  - a pivot rod extending transverse to the direction of belt travel through the openings in the second link

end of one of the plurality of belt modules and  
extending through the slotted openings in the first link  
end of an adjacent belt module such that the first and  
second link ends of the adjacent belt modules are  
5 intercalated and the adjacent belt modules are  
interlinked into adjacent hinged rows capable of  
following a curved path;

wherein the web on the cross-rib extends in the  
direction of belt travel such that, when the belt is at  
10 its maximum extension in the direction of belt travel, a  
space bounded by the web, an outer end of the first link  
end and the sidewalls of second links ends has a  
diameter less than 10mm.

15 2. The radius conveyor belt of Claim 1, wherein the  
first and second link ends each have a leg portion with  
substantially parallel sidewalls.

3. The radius conveyor belt of Claim 2, wherein the  
20 first and second link ends each have a head portion that  
is wider than the leg portion, the head portion having a  
pair of substantially parallel sidewalls and an endwall.

4. The radius conveyor belt of Claim 3, wherein a  
25 junction of the sidewalls and endwall of the head  
portion is rounded.

5. The radius conveyor belt of Claim 3, wherein the endwall of the head portion is rounded and connects a top surface of the link end to a bottom surface of the link end.

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6. The radius conveyor belt of Claim 1, further comprising an opening disposed through the belt module from the top surface to the bottom surface.

10 7. The radius conveyor belt of Claim 1, wherein the web and corrugated portion form a multilevel surface defining the end of the space between adjacent link ends.

15 8. A conveying system, comprising:

an endless radius conveyor belt, comprising a plurality of belt modules having a plurality of first link ends disposed in the direction of belt travel and having a plurality of second link ends disposed in the opposite direction, the first and second link ends disposed such that a space capable of receiving a link end is formed between each adjacent link end, the space being open at one end and terminating in an rounded region at the opposite end, the plurality of first link ends being offset from the plurality of second link ends such that the first link ends align with the space between the second link ends such that adjacently

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positioned belt modules are capable of intercalating so that the first link ends of one belt module fit into the spaces defined between the second link ends of an adjacent belt module, the plurality of first link ends  
5 having a slot defined therein, the slot disposed transverse to the direction of belt travel and extending in the direction of belt travel, the plurality of second link ends having a transverse opening defined therein;

an intermediate portion disposed between the first  
10 and second link ends and having a web and a corrugated portion, the web formed in the center of the belt modules and disposed such that a first side of the web terminates in a first surface of the belt module and a second side of the web terminates adjacent to the  
15 corrugated portion, wherein the web on the intermediate portion extends in the direction of belt travel such that, when the belt is at its maximum extension in the direction of belt travel, a space bounded by the web, an outer end of the first link end and the sidewalls of  
20 second links ends has a diameter less than 10mm.;

a pivot rod extending transverse to the direction of belt travel through the openings in the second link end of one of the plurality of belt modules and extending through the slotted openings in the first link  
25 end of an adjacent belt module such that the first and second link ends of the adjacent belt modules are intercalated and the adjacent belt modules are

interlinked into adjacent hinged rows capable of following a curved path; and,

5 a drive sprocket having teeth disposed around the perimeter thereof, the teeth capable of engaging with the rounded endwall of the link ends to drive the endless conveyor belt around a conveying path; and,

wherein the web and corrugated portion form a multilevel surface defining the end of the space between adjacent link ends.

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9. The conveying system of Claim 8, wherein the first and second link ends each have a leg portion with substantially parallel sidewalls.

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10. The conveying system of Claim 9, wherein the first and second link ends each have a head portion that is wider than the leg portion, the head portion having a pair of substantially parallel sidewalls and an endwall.

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11. The conveying system of Claim 10, wherein a junction of the sidewalls and endwall of the head portion is rounded.

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12. The conveying system of Claim 10, wherein the endwall of the head portion is rounded and connects a top surface of the link end to a bottom surface of the link end.

13. The conveying system of Claim 8, further comprising an opening disposed through the belt module from the top surface to the bottom surface.

- 5 14. The conveying system of Claim 8, wherein the web and rounded regions form a multilevel surface defining the end of the space between adjacent link ends.

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